

ABSTRACT

A method for synchronizing a secondary volume with a primary volume in a continuous data protection system begins by scanning a region of the primary volume, which is then compared with a corresponding region of the secondary volume. An identification of the scanned region is stored in a compare delta map when the comparison results in a discrepancy between the scanned region and the corresponding region. Data is copied from the primary volume to the secondary volume, using the compare delta map as a guide to locate the data to copy. If the data protection system has failed just prior to the restore process being initiated, it is termed a re-baseline, and the entire primary volume is scanned. If the data protection system is active prior to the restore process being initiated, it is termed a re-synchronization, and is optimized by scanning only select regions of the primary volume.